AT9-98-346

PATENT

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Perkins et al.

Serial No.:	09/232,622	Art Unit:	2173
Filed:	January 19, 1999	Examiner:	Kieu D. Vu

For: TREE-BASED INTERFACE APPARATUS FOR DISPLAY OF CALL DEPENDENCIES AND METHOD THEREFOR

Box AF
Assistant Commissioner for Patents
Washington, D.C. 20231

COPY OF PAPERS ORIGINALLY FILED

TRANSMITTAL OF APPEAL BRIEF
(PATENT APPLICATION - 37 CFR 1.192)

1. Transmitted herewith in triplicate is the APPEAL BRIEF in this application with respect to the Notice of Appeal filed on May 1, 2002.

NOTE: "The appellant shall, within 2 months from the date of the notice of appeal under § 1.191 in an application, reissue application, or patent under reexamination, or within the time allowed for response to the action appealed from, if such time is later, file a brief in triplicate." 37 CFR 1.192(a) (emphasis added).

2. STATUS OF APPLICANTS

This application is on behalf of

- ☒ other than a small entity
- ☐ small entity

  verified statement:
  - ☐ attached
  - ☐ already filed

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3. FEE FOR FILING APPEAL BRIEF

Pursuant to 37 CFR 1.17(f) the fee for filing the Appeal Brief is:

☐	small entity	$160.00
☒	other than a small entity	$320.00
	Appeal Brief fee due	**$320.00**

CERTIFICATE OF MAILING (37 CFR 1.8)

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to Box AF, Assistant Commissioner for Patents, Washington, D.C. 20231.

Date: 7/1/02

Serena Beller
(Type or print name of person mailing paper)

Serena Beller
(Signature of person mailing paper)

4. EXTENSION OF TERM

NOTE: The time periods set forth in 37 CFR 1.192(a) are subject to the provision of § 1.136 for patent applications. 37 CFR 1.191(d). Also see Notice of November 5, 1985 (1060 O.G. 27).

The proceedings herein are for a patent application and the provisions of 37 CFR 1.136 apply.

(complete (a) or (b) as applicable)

(a) ☐ Applicants petition for an extension of time under 37 CFR 1.136 (fees: 37 CFR 1.17(a)-(d)) for the total number of months checked below:

Extension (months)	Fee for other than small entity	Fee for small entity
☐ one month	$ 110.00	$ 55.00
☐ two months	$ 400.00	$200.00
☐ three months	$ 920.00	$460.00
☐ four months	$1,960.00	$980.00
	Fee	$

If an additional extension of time is required, please consider this a petition therefor.

(check and complete the next item, if applicable)

☐ An extension for _____ months has already been secured and the fee paid therefor of $_____ is deducted from the total fee due for the total months of extension now requested.

Extension fee due with this request $_____

or

(b) ☒ Applicants believe that no extension of term is required. However, this conditional petition is being made to provide for the possibility that applicants have inadvertently overlooked the need for a petition and fee for extension of time.

5. TOTAL FEE DUE

The total fee due is:

Appeal Brief fee $320.00

Extension fee (if any) $0.00

TOTAL FEE DUE $320.00

6. FEE PAYMENT

☐ Attached is a check in the sum of $____

☒ Charge Account No. 09-0447 (AT9-98-346) the sum of $320.00.

A duplicate of this transmittal is attached.

7. FEE DEFICIENCY

NOTE: If there is a fee deficiency and there is no authorization to charge an account, additional fees are necessary to cover the additional time consumed in making up the original deficiency. If the maximum, six-month period has expired before the deficiency is noted and corrected, the application is held abandoned. In those instances where authorization to charge is included, processing delays are encountered in returning the papers to the PTO Finance Branch in order to apply these charges prior to action on the cases. Authorization to charge the deposit account for any fee deficiency should be checked. See the Notice of April 7, 1986, 1065 O.G. 31-33.

☒ If any additional extension and/or fee is required, this is a request therefor and to charge Account No. 09-0447 (AT9-98-346).

AND/OR

☒ If any additional fee for claims is required, charge Account No. 09-0447 (AT9-98-346).

Reg. No.: 47,159

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of: Alan C. Perkins et al.	:	Before the Examiner: K. Vu
Serial No.: 09/232,622	:	Group Art Unit: 2173
Filed: January 19, 1999	:	IBM Corporation
	:	Intellectual Property Law
Title: TREE-BASED INTERFACE	:	11400 Burnet Road
APPARATUS FOR DISPLAY OF	:	Austin, Texas 78758
CALL DEPENDENCIES AND METHOD	:	
THEREFOR	:	

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July 1, 2002

APPEAL BRIEF

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I. REAL PARTY IN INTEREST

The real party in interest is International Business Machines Corporation, which is the assignee of the entire right, title and interest in the above-identified patent application.

CERTIFICATION UNDER 37 C.F.R. § 1.8

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to Box AF, Assistant Commissioner for Patents, Washington, D.C. 20231, on July 1, 2002.

Serena Beller
Signature
Serena Beller
(Printed name of person certifying)

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II. RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences known to Appellants, Appellants' legal representative or assignee which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

III. STATUS OF CLAIMS

Claims 1-30 are pending in the Application. Claims 1-30 stand rejected.

IV. STATUS OF AMENDMENTS

The Appellants' response to the Office Action having a mailing date of August 1, 2001 has been considered, but it does not place the application in condition for allowance because the Appellants' arguments were deemed unpersuasive.

V. SUMMARY OF INVENTION

It is commonplace in the data processing art for software to be written in a modular structure. Specification, page 1, lines 8-9. The tasks which the software performs are typically embodied in a set of subtasks which, depending on the development environment, may be referred to as procedures, functions, methods, subroutines or events. Specification, page 1, lines 9-11. An event is a particular software routine that receives user interactions via standard user interface devices. Specification, page 1, line 11 - page 2, line 1. Although, again depending on the development system, these may have different connotations, for the purposes of the present invention they will be collectively referred to as routines. Specification, page 2, lines 2-4.

A complex software program which may be typical of the complex tasks performed by modern data processing systems may include a multitude of such procedures. Specification, page 2, lines 5-7. Moreover, routines typically refer to other routines, whereby

a hierarchical structure results. Specification, page 2, lines 7-8. In a sophisticated software product, a complex hierarchical, or nested, chain of routine references may result. Specification, page 2, lines 8-9. Tracking this hierarchical chain of dependencies as a development of the software program progresses may be difficult. Specification, page 2, lines 9-11. Additionally, maintenance of the product, which may be performed by persons other than the developers, may also be complicated by the complex hierarchical structure. Specification, page 2, lines 11-13. Thus, there is a need in the art for a mechanism to track and display the cross referencing of procedures in data processing software, thereby allowing the programmer to have knowledge of the calling and called routines that will be affected if changes are applied to any given routine. Specification, page 2, lines 13-16.

The problems outlined above may at least in part be solved in some embodiments by displaying hierarchical dependencies. Specification, page 3, lines 3-5. In one embodiment of the present invention, a method for displaying hierarchical dependencies may comprise the step of selecting a routine from a routine list displayed in one of a first and second window regions. Specification, page 3, lines 5-6. The method may further comprise the step of displaying one of a first routine called by the routine and a second routine calling the routine in response to the selection. Specification, page 3, lines 6-8.

VI. ISSUES

A. Are claims 1, 3-5, 9-11, 13-15, 19-21, 23-25 and 29-30 properly rejected under 35 U.S.C. §103(a) as being unpatentable over Lennert et al. (U.S. Patent No. 6,055,227) (hereinafter "Lennert") in view of Simonyi (U.S. Patent No. 5,911,072)?

B. Are claims 2, 12 and 22 properly rejected under 35 U.S.C. §103(a) as being unpatentable over Lennert in view of Simonyi and further in view of Davies (U.S. Patent No. 6,002,396)?

C. Are claims 6-7, 16-17 and 26-27 properly rejected under 35 U.S.C. §103(a) as being unpatentable over Lennert in view of Simonyi and further in view of Pazel (U.S. Patent No. 6,028,999)?

D. Are claims 8, 18 and 28 properly rejected under 35 U.S.C. §103(a) as being unpatentable over Lennert in view of Simonyi and Pazel and further in view of Davies?

VII. GROUPING OF CLAIMS

Claims 1, 4, 11, 14, 21 and 24 form a first group.

Claims 2, 12 and 22 form a second group.

Claims 3, 13 and 23 form a third group.

Claims 5, 15 and 25 form a fourth group.

Claims 6, 16 and 26 form a fifth group.

Claims 7, 17 and 27 form a sixth group.

Claims 8, 18 and 28 form a seventh group.

Claims 9, 19 and 29 form an eighth group.

Claims 10, 20 and 30 form a ninth group.

The reasons for these groupings are set forth in Appellants' arguments in Section VIII.

VIII. ARGUMENT

A. Claims 1, 3-5, 9-11, 13-15, 19-21, 23-25 and 29-30 are not properly rejected under 35 U.S.C. §103(a) for being unpatentable over Lennert in view of Simonyi

A *prima facie* showing of obviousness requires the Examiner to establish, *inter alia*, that the prior art references teach or suggest, either alone or in combination, all of the limitations of the claimed invention, and the Examiner must provide a motivation or

suggestion to combine or modify the prior art reference to make the claimed inventions. M.P.E.P.§2142. The motivation or suggestion to combine references must come from one of three possible sources: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1458 (Fed. Cir. 1998). The showings must be clear and particular. *In re Dembiczak*, 50 U.S.P.Q.2d 1614, 1617 (Fed. Cir. 1999). Broad conclusory statements regarding the teaching of multiple references, standing alone, are not evidence. *Id.*

Furthermore, the Office Action (dated July 3, 2001) states that "there is no requirement that a motivation to make the modification be expressly articulated. The test for combining references in what the combination of disclosures taken as a whole would suggest to one of ordinary skill in the art. *In re McLaughlin*, 170 U.S.P.Q. 209 (C.C.P.A. 1971). References are evaluated by what they suggest to one versed in the art, rather than by their specific disclosures. *In re Bozek*, 163 U.S.P.Q. 545 (C.C.P.A. 1969)." Office Action (dated July 3, 2001), Page 6. *Appellants respectfully contest the assertion that the Examiner does not have to provide any evidence to support a suggestion or motivation for combining references. The Examiner must provide independent evidence to support the assertion that the suggestion to combine references comes from the knowledge and common sense of a person of ordinary skill in the art. Smiths Industries Medical Systems Inc. v. Vital Signs Inc.*, 51 USPQ2d 1415, 1421 (Fed. Cir. 1999). The reliance on "*common knowledge and common* sense" may not be substituted for evidence. *In re Lee*, 61 U.S.P.Q.2d 1430, 1435 (Fed. Cir. 2002). The Federal Circuit in *In re Lee* specifically held that *Bozak* did not hold that common knowledge and common sense are a substitute for evidence. *Id.* Nor does *Bozak*, after thirty-two years of isolation, outweigh the dozens of rulings of the Federal Circuit and the Circuit of Customs and Patent Appeals that determination of patentability must be based on evidence. *Id.* The *Examiner must submit objective evidence in support of combining references. In re Lee* at 1434; *In re Kotzab*, 55 U.S.P.Q.2d 1313, 1316-1317 (Fed. Cir.

2000). The factual question of motivation is material to patentability and *can not be resolved on subjective belief and unknown authority. In re Lee* at 1434.

In order to reject under 35 U.S.C.§103, therefore, the Examiner must provide a proper motivation for combining or modifying the references. M.P.E.P.§2142; *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1457-1458 (Fed. Cir. 1998). The Examiner recites that "it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Simonyi's teaching of displaying one of a first routine called by said routine and a second routine calling said routine in response to said collection in Lennert's system with the motivation being *to provide the user with the detail description of the routine.* One skill in the art would appreciate the detail presentation of the routine since it enables one skill in the art to easily view, analyze, and comprehend the functionality of the routine for the purpose of using and debugging it. This motivation is considered well known within the knowledge of one skilled in the art." Office Action (dated July 3, 2001), Pages 6-7.

There is no motivation to combine Simonyi with Lennert as there is no suggestion or motivation in either Simonyi or Lennert or in their combination or in the knowledge of those ordinarily skilled in the art to combine the teaching of a *computer program that can create new network configuration databases* as taught in Lennert with the teaching of a computer method and system that *supports extensible computational constructs for use in creating a computer program* as taught in Simonyi. Lennert teaches that "the computer program of this invention establishes a new database structure and mines source databases to load source network configuration data into the new operator services database structure. The computer program is capable of searching for the desired data and automates many of the tasks for configuring a new operator services database from the source databases. *This eliminates the current requirement for manual data entry for configuring new operator services databases for telecommunication switches.*" Column 2, Lines 11-20. Simonyi

teaches that "the system represents a *computer program as an intentional program tree*, which is a high-level program tree that is a syntax-independent representation using high-level computational constructs." Abstract. Simonyi further teaches that "because the program is stored as an intentional program tree in a syntax-independent manner, the *editor allows the program to select in which of a various programming language the computer program is to be displayed.* In addition, the *system transforms an intentional program tree to a reduced program, which is a program tree comprising low-level computational constructs*, in a process called reduction. The reduction process replaces expressions of programmer's intents with a representation of one of possible multiple implementations of those intents using low-level computational constructs. Abstract. As stated above, the Examiner stated that the motivation to combine Lennert with Simonyi was to *provide the user with the detail description of the routine.* Appellants respectfully contest the Examiner's implied assertion that Simonyi teaches providing a detailed description of a routine. Furthermore, Appellants respectfully assert that modifying Lennert to provide a detailed description of a routine is not relevant to the purpose of *eliminating the current requirement for manual data entry for configuring new operator services databases for telecommunication switches* as stated in Lennert. As interpreted by the Appellants, Lennert *teaches automating the tasks for configuring new operator services databases for telecommunication switches*. As interpreted by the Appellants, Simonyi teaches a system that allows a *program to select the programming language in which the program will be displayed.* Furthermore, as interpreted by the Appellants, Simonyi teaches that the system may *transform a high-level program tree to a low-level program tree comprising low-level computational constructs*. Therefore, there is no motivation to combine Simonyi with Lennert as there is no suggestion or motivation in either Simonyi or Lennert or in their combination or in the knowledge of persons of ordinary skill in the art to combine the teaching of a *computer program that can create new network configuration databases* as

taught in Lennert with the teaching of a computer method and system that *supports extensible computational constructs for use in creating a computer program* as taught in Simonyi.

Lennert and Simonyi, taken singly or in combination, do not teach or suggest "*selecting a routine from a routine list* displayed in *one of a first and a second window region*" as recited in claim 1 and similarly in claims 11 and 21. Instead, Lennert teaches a "browse feature 124" that "*allows the user to select the environment 132*, then *calls* the display equipment *(dis_eq) routine 134*, the display packs (disp_paks) routine 136, the display features *(disp_feat) routine 138*, the display equipment number (*disp_ens) routine 140*, and the display the *test user guide (disp_tug) routine 142*." Column 7, Lines 34-40. As interpreted by the Appellants, Lennert allows the user to *select the environment which calls various routines*. The Office Action (dated July 3, 2001) states that "[i]n Fig. 6, Lennert teaches window region comprising the environment 132 which, when selected, calls a list of routine. Then components associating with each routine are displayed. Therefore, it is inherent that the user can select a routine from the routine list as claimed in claims 1, 11 and 21." Office Action (dated July 3, 2001), Pages 7-8. Appellants respectfully contest the assertion that it is inherent that a user can select a routine from the routine list. The Examiner has provided *no objective evidence* in making an assertion that it is inherent that a user can select a routine from the routine list. The Examiner must provide a basis in fact and/or technical reasoning to support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art. *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990); M.P.E.P. §2112. Therefore, Lennert and Simonyi, taken singly or in combination, do not teach or suggest *selecting a routine from a routine list*. Neither does Lennert and Simonyi, taken singly or in combination, teach or suggest "selecting a routine a routine list *displayed in one of a first and a second window region*." Accordingly, one ordinarily skilled in the art would not be capable of re-creating claims 1, 11 and 21 in view of the cited prior art.

Lennert and Simonyi, taken singly or in combination, do not teach or suggest "*displaying one of a first routine called by said routine* and a *second routine calling said routine in response to said selection*" as recited in claim 1 and similarly in claims 11 and 21. Simonyi teaches that "the routine creates a data structure called a display list. After the routine completely expands the display list, the routine uses it to display the representation. The display list is a linked list that contains *display list items*, each of which can either be *unexpanded or expanded*." Column 23, Lines 11-15. Simonyi further teaches that "expanded display list items, on the other hand, *correspond to one of one or more pieces of the display representation* details associated of the type of a particular node of the subtree." Column 23, Lines 19-22. Simonyi further teaches that "the *routine replaces the unexpanded display list with a replacement set of display list items specified by the selected representation format. Some of the display list items may be expanded* and correspond to the actual display representation, while *others may be unexpanded* and correspond to nodes of the subtree that are children of the node to which the replaced display list entry corresponds." Column 23, Lines 30-38. As interpreted by the Appellants, Simonyi simply teaches items that may be expanded or unexpanded. However, Lennert and Simonyi, taken singly or in combination, do not teach or suggest *displaying one of a first routine called by said routine.* Furthermore, Lennert and Simonyi, taken singly or in combination, do not teach or suggest *displaying* a *second routine calling said routine in response to said selection.* Accordingly, one ordinarily skilled in the art would not be capable of re-creating claims 1, 11 and 21 in view of the cited prior art.

Lennert and Simonyi, taken singly or in combination, do not teach or suggest "said *routine list is contained* in a *plurality of data structures stored in a database*" as recited in claim 3 and similarly in claims 13 and 23. The Office Action (dated July 3, 2001) states that "it is inherent that Simonyi's system should have a database to store data structures which comprise the routine list so that each routine in the routine list, when called, can display its

associating components." Office Action (dated July 3, 2001), Page 8. The Examiner has provided *no objective evidence* in making an assertion that it is inherent that Simonyi's system should have a database to store data structures which comprise the routine list so that each routine in the routine list, when called, can display its associating components. The Examiner must provide a basis in fact and/or technical reasoning to support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art. *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990); M.P.E.P. §2112. Accordingly, one ordinarily skilled in the art would not be capable of re-creating claims 3, 13 and 23 in view of the cited prior art.

Lennert and Simonyi, taken singly or in combination, do not teach or suggest "said step of selecting said routine from a routine list comprises the step of *selecting an icon associated with said routine*, wherein said *icon flags said routine as having an undisplayed routine dependency*" as recited in claim 5 and similarly in claims 15 and 25. The Office Action (dated July 3, 2001) states that "Applicants' attention is directed to Fig. 11C wherein reference number 1163 represents an icon flagging an undisplayed routine dependency." Office Action (dated July 3, 2001), Page 9. Appellants respectfully *contest the assertion that reference number 1163 represents an icon associated with a routine.* Furthermore, Appellants respectfully *contest the assertion that reference number 1163 represents an icon that flags a routine as having an undisplayed routine dependency.* Instead, Simonyi teaches that "because the user is likely to next insert a node to replace the placeholder node, the IP tree editor has *moved the insertion point 1153 to the placeholder node as a tree selection.* This tree selection insertion point 1153 is indicated by the horizontal bar on the line above node 1152. In the display representation, the IP tree editor has generated an asterisk as the display representation for the new multiplication node and question marks for the new placeholder node, and moved the *tree selection insertion point 1163 to the question marks.*" Column 24, Lines 20-30. As interpreted by the Appellants, the insertion point 1163 in

Simonyi is not associated with a routine but instead represents a point that a programmer may insert a particular node. Furthermore, as interpreted by the Appellants, the insertion point 1163 does not represent an undisplayed routine dependency but a point that a programmer may insert a particular node. Lennert and Simonyi, taken singly or in combination, do not teach or suggest *selecting an icon associated with said routine.* Furthermore, Lennert and Simonyi, taken singly or in combination, do not teach or suggest an *icon that flags a routine as having an undisplayed routine dependency.* Accordingly, one ordinarily skilled in the art would not be capable of re-creating claims 5, 15 and 25 in view of the cited prior art.

Lennert and Simonyi, taken singly or in combination, do not teach or suggest "the step of *specifying a routine type*, and wherein said step of displaying said one of said first and second routines comprises the step of *displaying* said one of said first and second routines *in response to said routine type*" as recited in claim 9 and similarly in claims 19 and 29. Instead, Lennert teaches a "browse feature 124" that "*allows the user to select the environment 132*, then *calls* the display equipment *(dis_eq) routine 134*, the display packs (disp_paks) routine 136, the display features *(disp_feat) routine 138*, the display equipment number *(disp_ens) routine 140*, and the display the *test user guide (disp_tug) routine 142.*" Column 7, Lines 34-40. As interpreted by the Appellants, Lennert allows the user to *select the environment which calls various routines.* The Office Action (dated July 3, 2001) states that "although Lennert does not explicitly use the phrase 'routine type', each routine in Fig. 6 can be interpreted as each routine type." Office Action (dated July 3, 2001), Page 10. Appellants respectfully contest the Examiner's interpretation that each routine can be interpreted as a routine type. The Examiner must consider each word in a claim in judging the patentability of that claim against the prior art. *In re Wilson*, 424 F.2d 1382, 1385, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970); M.P.E.P. §2143.03. As interpreted by the Appellants, the Examiner has not considered routine and routine type separately. Furthermore, assuming

As a result of the foregoing, Appellants respectfully assert that the Examiner's prima facie case of obviousness is not taught or suggested by the cited prior art since there are numerous claim limitations, and thus one skilled in the art would not have been able to create the claimed invention in view of the cited prior art.

B. Claims 2, 12 and 22 are not properly rejected under 35 U.S.C. §103(a) for being unpatentable over Lennert in view of Simonyi and further in view of Davies

As stated above, a *prima facie* showing of obviousness requires the Examiner to establish, *inter alia*, that the prior art references teach or suggest, either alone or in combination, all of the limitations of the claimed invention, and the Examiner must provide a motivation or suggestion to combine or modify the prior art reference to make the claimed inventions. M.P.E.P.§2142. The motivation or suggestion to combine references must come from one of three possible sources: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1458 (Fed. Cir. 1998). The showings must be clear and particular. See *In re Dembiczak*, 50 U.S.P.Q.2d 1614, 1617 (Fed. Cir. 1999). Broad conclusory statements regarding the teaching of multiple references, standing alone, are not evidence. *Id.*

Furthermore, the Office Action states that "there is no requirement that a motivation to make the modification be expressly articulated. The test for combining references in what the combination of disclosures taken as a whole would suggest to one of ordinary skill in the art. *In re McLaughlin*, 170 U.S.P.Q. 209 (C.C.P.A. 1971). References are evaluated by what they suggest to one versed in the art, rather than by their specific disclosures. *In re Bozak*, 163 U.S.P.Q. 545 (C.C.P.A. 1969)." Office Action (dated July 3, 2001), Page 6. *Appellants respectfully contest the assertion that the Examiner does not have to provide any evidence*

to support a suggestion or motivation for combining references. The Examiner must provide independent evidence to support the assertion that the suggestion to combine references comes from the knowledge and common sense of a person of ordinary skill in the art. Smiths Industries Medical Systems Inc. v. Vital Signs Inc., 51 USPQ2d 1415, 1421 (Fed. Cir. 1999). The reliance on "*common knowledge and common* sense" may not be substituted for evidence. *In re Lee*, 61 U.S.P.Q.2d 1430, 1435 (Fed. Cir. 2002). The Federal Circuit in *In re Lee* specifically held that *Bozak* did not hold that common knowledge and common sense are a substitute for evidence. *Id.* Nor does *Bozak*, after thirty-two years of isolation, outweigh the dozens of rulings of the Federal Circuit and the Circuit of Customs and Patent Appeals that determination of patentability must be based on evidence. *Id.* The *Examiner must submit objective evidence in support of combining references. In re Lee* at 1434; *In re Kotzab*, 55 U.S.P.Q.2d 1313, 1316-1317 (Fed. Cir. 2000). The factual question of motivation is material to patentability and *can not be resolved on subjective belief and unknown authority. In re Lee* at 1434.

In order to reject under 35 U.S.C.§103, therefore, the Examiner must provide a proper motivation for combining or modifying the references. M.P.E.P.§2142; *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1457-1458 (Fed. Cir. 1998). The Examiner recites that "it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Davis's teaching of first window region comprises a calls window region and a second window region comprises a called-by window region in Lennert's system with the *motivation to provide a convenient graphical representation of the called-by routine.* One skill in the art would appreciate the graphical representation of the called-by routine since it enables one skill in the art to easily view, analyze, and comprehend the hierarchy of the routine for the purpose of using and debugging it. This motivation is considered well known within the knowledge of one skill in the art." Office Action (dated July 3, 2001), Page 7. Furthermore, the Examiner recites that "it would have been obvious to one of ordinary skill in the art at the

the called-by routine. Furthermore, Appellants respectfully assert that providing a convenient graphical representation of the called-by routine is not relevant to the purpose of *eliminating the current requirement for manual data entry for configuring new operator services databases for telecommunication switches* as stated in Lennert. As stated above, the Examiner stated that the motivation to combine Lennert with Davis was to *accurately and efficiently display the routine.* Appellants respectfully contest the Examiner's implied assertion that Davis teaches displaying a routine. Furthermore, Appellants respectfully assert that accurately and efficiently displaying a routine is not relevant to the purpose of *eliminating the current requirement for manual data entry for configuring new operator services databases for telecommunication switches* as stated in Lennert. As interpreted by the Appellants, Lennert *teaches automating the tasks for configuring new operator services databases for telecommunication switches*. As interpreted by the Appellants, Davis teaches a system that *allows a user to identify the steps necessary in performing a particular task as well as tracking the progress of the particular task and its constituent steps*. Therefore, there is no motivation to combine Davis with Lennert as there is no suggestion or motivation in either Davis or Lennert or in their combination or in the knowledge of those ordinarily skilled in the art to combine the teaching of a *computer program that can create new network configuration databases* as taught in Lennert with the teaching of *creating a process structure for performing a task* as taught in Davis.

Lennert, Simonyi and Davies, taken singly or in combination, do not teach or suggest "wherein said *first window region comprises a calls window region* and said *second window region comprises a called-by window region*" as recited in claim 2 and similarly in claims 12 and 22. The Office Action (dated July 3, 2001) directs Appellants attention to Figure 5 in Davis as teaching a first window comprising a calls window region and a second window region comprising a called-by window region. Office Action (dated July 3, 2001), Page 8. The Office Action (dated July 3, 2001) states that "the three routines 'Establish Product

Concept', 'Develop Financial Plan' and 'Set-up Business' form 'a calls window region' wherein 'Set-up Business' calls 'Build a Business Plan' and 'Build a Business Plan' calls 'Establish Product Concept.' The three routines 'Develop Financial Plan', 'Build a Business Plan', and 'Set-up Business' form 'a called-by window region' wherein 'Set-up Business' is called by 'Build a Business Plan' and 'Build a Business Plan' is called by 'Establish Product Concept'." Office Action (dated July 3, 2001), Page 8. Appellants respectfully contest the Examiner's assertion that Figure 5 in Davis teaches a first window comprising a calls window region and a second window region comprising a called-by window region. Instead, Davis teaches that "the method is developing from right to left across the screen in response to the HOW mode." Column 8, Lines 36-37. Davis further teaches that "in the HOW? mode the associated steps in adjacent stages in the developing task model are linked by arrows pointing from right to left." Column 8, Lines 39-41. Davis further teaches that "the user in this example can then work backwards, asking the question WHY? to define for the model the relevance of this process. This is illustrated in FIG 5 in which the basic task processes of 'build a business plan' and 'secure finances' appear." Column 9, Lines 3-7. As interpreted by the Appellants, *Figure 5 in Davis teaches a display screen displaying steps of how to accomplish a particular task and why those steps are necessary.* As interpreted by the Appellants, *Davis does not teach routines calling other routines or routines being called by other routines. Davis simply teaches displaying steps of how to perform a task and why those steps are necessary.* Therefore, Figure 5 in Davis does not teach a window region comprising *a calls window region* or a *called-by window region.* Lennert, Simonyi and Davies, taken singly or in combination, do not teach or suggest *a first window region that comprises a calls window region.* Lennert, Simonyi and Davies, taken singly or in combination, do not teach or suggest *a second window region that comprises a called-by window region.* Accordingly, one ordinarily skilled in the art would not be capable of re-creating claims 2, 12 and 22 in view of the cited prior art

As a result of the foregoing, Appellants respectfully assert that the Examiner's prima facie case of obviousness is not taught or suggested by the cited prior art since there are numerous claim limitations, and thus one skilled in the art would not have been able to create the claimed invention in view of the cited prior art.

C. Claims 6-7, 16-17 and 26-27 are not properly rejected under 35 U.S.C. §103(a) for being unpatentable over Lennert in view of Simonyi and further in view of Pazel

As stated above, a *prima facie* showing of obviousness requires the Examiner to establish, *inter alia*, that the prior art references teach or suggest, either alone or in combination, all of the limitations of the claimed invention, and the Examiner must provide a motivation or suggestion to combine or modify the prior art reference to make the claimed inventions. M.P.E.P.§2142. The motivation or suggestion to combine references must come from one of three possible sources: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1458 (Fed. Cir. 1998). The showings must be clear and particular. See *In re Dembiczak*, 50 U.S.P.Q.2d 1614, 1617 (Fed. Cir. 1999). Broad conclusory statements regarding the teaching of multiple references, standing alone, are not evidence. *Id.*

Furthermore, the Office Action states that "there is no requirement that a motivation to make the modification be expressly articulated. The test for combining references in what the combination of disclosures taken as a whole would suggest to one of ordinary skill in the art. *In re McLaughlin*, 170 U.S.P.Q. 209 (C.C.P.A. 1971). References are evaluated by what they suggest to one versed in the art, rather than by their specific disclosures. *In re Bozek*, 163 U.S.P.Q. 545 (C.C.P.A. 1969)." Office Action (dated July 3, 2001), Page 6. *Appellants respectfully contest the assertion that the Examiner does not have to provide any evidence to support a suggestion or motivation for combining references. The Examiner must provide*

independent evidence to support the assertion that the suggestion to combine references comes from the knowledge and common sense of a person of ordinary skill in the art. Smiths Industries Medical Systems Inc. v. Vital Signs Inc., 51 USPQ2d 1415, 1421 (Fed. Cir. 1999). The reliance on "*common knowledge and common* sense" may not be substituted for evidence. *In re Lee*, 61 U.S.P.Q.2d 1430, 1435 (Fed. Cir. 2002). The Federal Circuit in *In re Lee* specifically held that *Bozak* did not hold that common knowledge and common sense are a substitute for evidence. *Id.* Nor does *Bozak*, after thirty-two years of isolation, outweigh the dozens of rulings of the Federal Circuit and the Circuit of Customs and Patent Appeals that determination of patentability must be based on evidence. *Id.* The *Examiner must submit objective evidence in support of combining references. In re Lee* at 1434; *In re Kotzab*, 55 U.S.P.Q.2d 1313, 1316-1317 (Fed. Cir. 2000). The factual question of motivation is material to patentability and *can not be resolved on subjective belief and unknown authority. In re Lee* at 1434.

In order to reject under 35 U.S.C.§103, therefore, the Examiner must provide a proper motivation for combining or modifying the references. M.P.E.P.§2142; *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1457-1458 (Fed. Cir. 1998). The Examiner recites that "it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Pazel's teaching of accessing a data structure stored in a database .... in Lennert's system with the *motivation being to conveniently identify routines.*" Office Action (dated January 4, 2001), Page 6. The Examiner further recites that "one skill in the art would appreciate the convenient identification of a routine since it enables one skill in the art to easily recognize, view and analyze the routine for the purpose of using and debugging it. This motivation is considered well known within the knowledge of one skill in the art." Office Action (dated July 3, 2001), Page 7. Furthermore, the Examiner recites that "it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Pazel's teaching of displaying said one of said first and second routines further comprises the step of

displaying said first routine in response to said routine identifier in a routine field of said entry in Lennert's system with the *motivation being to conveniently identify routines*" Office Action (dated January 4, 2001), Page 7.

There is no motivation to combine Pazel with Lennert as there is no suggestion or motivation in either Pazel or Lennert or in their combination or in the knowledge of those ordinarily skilled in the art to combine the teaching of a *computer program that can create new network configuration databases* as taught in Lennert with the teaching of *a program error detection tool* as taught in Pazel. Lennert teaches that "the computer program of this invention establishes a new database structure and mines source databases to load source network configuration data into the new operator services database structure. The computer program is capable of searching for the desired data and automates many of the tasks for configuring a new operator services database from the source databases. *This eliminates the current requirement for manual data entry for configuring new operator services databases for telecommunication switches.*" Column 2, Lines 11-20. Pazel teaches "a system and method for *constructing a program error detection tool* herein referred to as a 'virtual debugger.' The virtual debugger aids in alleviating many of the foregoing problems by *allowing testing of complex program units to be conducted prior to component or integration testing*, and *even prior to the component development completion*. This is achieved through 'non-sequential program statement execution' in an incompletely assembled program runtime environment." Column 2, Lines 13-21. As stated above, the Examiner stated that the motivation to combine Lennert with Pazel was to *conveniently identify routines*. Appellants respectfully contest the Examiner's implied assertion that Pazel teaches a system or method that conveniently identifies routines. Furthermore, Appellants respectfully assert that conveniently identifying routines is not relevant with the purpose of *eliminating the current requirement for manual data entry for configuring new operator services databases for telecommunication switches* as stated in Lennert. As interpreted by the Appellants, Lennert

teaches automating the tasks for configuring new operator services databases for telecommunication switches. As interpreted by the Appellants, Pazel teaches an *error detection tool.* Therefore, there is no motivation to combine Pazel with Lennert as there is no suggestion or motivation in either Pazel or Lennert or in their combination or in the knowledge of those ordinarily skilled in the art to combine the teaching of a *computer program that can create new network configuration databases* as taught in Lennert with the teaching of *a program error detection tool* as taught in Pazel.

Lennert, Simonyi and Pazel, taken singly or in combination, do not teach or suggest "said step of accessing a data structure stored in a database, said data structure having an entry corresponding to said routine, and wherein said step of *displaying* said one of said first and second routines comprises the step of displaying said one of said first and second routines in *response to a routine identifier*, corresponding to said one of said first and second routines, contained in a portion of said entry" as recited in claim 6 and similarly in claims 16 and 26. Instead, Pazel teaches a "global data dictionary 13" that "provides information about the structure and location of program routines and application-wide program definitions." Column 4, Lines 58-60. Pazel further teaches a "*global routine list 16*" that "provides a *list of global routine items 17*, each containing details about each routine in the application. *Each global routine item* preferably *contains* the routine's name 18, a *unique reference identifier 19*, and the routine's location 20 within the program content." Column 6, Lines 6-11. As interpreted by the Appellants, Pazel teaches a list comprising routine items where each routine item may comprise a *reference identifier.* As interpreted by the Appellants, Pazel *does not teach displaying* said one of said first and second routines *in response to a routine identifier* but simply teaches storing a reference identifier associated with a particular routine item. The Office Action (dated July 3, 2001) states that "Lennert teaches the displaying routine when selected." Office Action (dated July 3, 2001), Page 9. Appellants respectfully contest the assertion that Lennert teaches displaying a routine *when selected* for

the reasons stated above. Furthermore, Appellants respectfully contest the implied assertion that Lennert teaches displaying a routine *in response to a routine identifier*. As stated above, a *prima facie* showing of obviousness requires the Examiner to establish, *inter alia*, that the prior art references teach or suggest, either alone or in combination, all of the limitations of the claimed invention, and the Examiner *must provide a motivation or suggestion to combine or modify the prior art reference to make the claimed inventions*. M.P.E.P.§2142. The *Examiner has not provided any motivation or suggestion to modify Lennert or Simonyi or Pazel or their combination to display a routine in response to a routine identifier*. Therefore, the Examiner has not presented a *prima facie* case of obviousness. Lennert, Simonyi and Pazel, taken singly or in combination, do not teach or suggest *displaying* said one of said first and second routines comprises the step of displaying said one of said first and second routines in *response to a routine identifier*. Accordingly, one ordinarily skilled in the art would not be capable of re-creating claims 6, 16 and 26 in view of the cited prior art

Lennert, Simonyi and Pazel, taken singly or in combination, do not teach or suggest "*displaying said first routine in response to said routine identifier in a routine field of said entry*" as recited in claim 7 and similarly in claims 17 and 27. Instead, Pazel teaches a "global data dictionary 13" that "provides information about the structure and location of program routines and application-wide program definitions." Column 4, Lines 58-60. Pazel further teaches a "*global routine list 16*" that "provides a *list of global routine items 17*, each containing details about each routine in the application. *Each global routine item* preferably *contains* the routine's name 18, a *unique reference identifier 19*, and the routine's location 20 within the program content." Column 6, Lines 6-11. As interpreted by the Appellants, Pazel teaches a list comprising routine items where each routine item may comprise a *reference identifier*. As interpreted by the Appellants, Pazel does not teach *displaying* a *routine* in *response to a routine identifier in a routine field of the entry*. The Office Action (dated July 3, 2001) states that "Lennert teaches the displaying routine when selected."

Office Action (dated July 3, 2001), Page 10. Appellants respectfully contest the assertion that Lennert teaches displaying a routine *when selected* for the reasons stated above. Furthermore, Appellants respectfully contest the implied assertion that Lennert teaches displaying a routine *in response to a routine identifier*. As stated above, a *prima facie* showing of obviousness requires the Examiner to establish, *inter alia*, that the prior art references teach or suggest, either alone or in combination, all of the limitations of the claimed invention, and the Examiner *must provide a motivation or suggestion to combine or modify the prior art reference to make the claimed inventions*. M.P.E.P.§2142. The *Examiner has not provided any motivation or suggestion to modify Lennert or Pazel or Simonyi or their combination to display a routine in response to a routine identifier*. Therefore, the Examiner has not presented a *prima facie* case of obviousness. Lennert, Simonyi and Pazel, taken singly or in combination, do not teach or suggest *displaying* a *routine* in *response to a routine identifier in a routine field of the entry*. Accordingly, one ordinarily skilled in the art would not be capable of re-creating claims 7, 17 and 27 in view of the cited prior art

As a result of the foregoing, Appellants respectfully assert that the Examiner's prima facie case of obviousness is not taught or suggested by the cited prior art since there are numerous claim limitations, and thus one skilled in the art would not have been able to create the claimed invention in view of the cited prior art.

D. Claims 8, 18 and 28 are not properly rejected under 35 U.S.C. §103(a) for being unpatentable over Lennert in view of Simonyi and Pazel and further in view of Pazel

As stated above, a *prima facie* showing of obviousness requires the Examiner to establish, *inter alia*, that the prior art references teach or suggest, either alone or in combination, all of the limitations of the claimed invention, and the Examiner must provide

a motivation or suggestion to combine or modify the prior art reference to make the claimed inventions. M.P.E.P.§2142. The motivation or suggestion to combine references must come from one of three possible sources: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1458 (Fed. Cir. 1998). The showings must be clear and particular. See *In re Dembiczak*, 50 U.S.P.Q.2d 1614, 1617 (Fed. Cir. 1999). Broad conclusory statements regarding the teaching of multiple references, standing alone, are not evidence. *Id.* For the reasons stated above, the Examiner has not provided any *objective evidence in support of combining the above references as required in an obviousness rejection. In re Lee*, 61 U.S.P.Q.2d 1430, 1434 (Fed. Cir. 2002); *In re Kotzab*, 55 U.S.P.Q.2d 1313, 1316-1317 (Fed. Cir. 2000). The factual question of motivation is material to patentability and *can not be resolved on subjective belief and unknown authority. In re Lee* at 1434.

Lennert, Simonyi, Davies and Pazel, taken singly or in combination, do not teach or suggest "*displaying said second routine in response to said routine identifier in a routine called field of said entry*" as recited in claim 8 and similarly in claims 18 and 28. The Office Action (dated July 3, 2001) states that "Pazel teaches that each routine comprises a reference identifier (Fig. 3), Lennert teaches the displaying routine when selected (Fig. 6). Davies teaches the displaying of routine which calls other routine (second routine) (Fig.5)." Office Action (July 3, 2001), Page 10. Appellants respectfully contest the assertion that Lennert teaches displaying a routine *when selected* for the reasons stated above. Furthermore, Appellants respectfully contest the assertion that Davies teaches the displaying of a routine which calls other routines for the reasons stated above. Furthermore, the Office Action (dated January 4, 2001) directs Appellants attention to the last three routines in Figure 5 in Davis as teaching displaying the second routine in response to the routine identifier in a routine called field of the entry. Office Action (dated January 4, 2000), Page 7. Appellants respectfully contest the Office Action's assertion that Figure 5 in Davis teaches displaying

the second routine in response to the routine identifier in a routine called field of the entry. As interpreted by the Appellants, *the last three entries in Figure 5 in Davis are steps to accomplish a particular task.* As interpreted by the Appellants, Figure 5 in Davis does not teach *displaying a routine* in *response to a routine identifier* in a *routine called field of the entry.* Furthermore, as stated above, a *prima facie* showing of obviousness requires the Examiner to establish, *inter alia*, that the prior art references teach or suggest, either alone or in combination, all of the limitations of the claimed invention, and the Examiner *must provide a motivation or suggestion to combine or modify the prior art reference to make the claimed inventions.* M.P.E.P.§2142. The *Examiner has not provided any motivation or suggestion to modify Lennert or Pazel or Simonyi or Davies or their combination to display a routine* in *response to a routine identifier* in a *routine called field of the entry.* Therefore, the Examiner has not presented a *prima facie* case of obviousness. Lennert, Simonyi, Davies and Pazel, taken singly or in combination, do not teach or suggest *displaying a routine in response to a routine identifier in a routine called field of the entry.* Accordingly, one ordinarily skilled in the art would not be capable of re-creating claims 8, 18 and 28 in view of the cited prior art

As a result of the foregoing, Appellants respectfully assert that the Examiner's prima facie case of obviousness is not taught or suggested by the cited prior art since there are numerous claim limitations, and thus one skilled in the art would not have been able to create the claimed invention in view of the cited prior art.

IX. CONCLUSION

For the reasons noted above, the rejections of claims 1-30 are in error. Appellants respectfully request reversal of the rejections and allowance of claims 1-30.

Respectfully submitted,

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APPENDIX

1. A method of displaying hierarchical call dependencies comprising the steps of:

selecting a routine from a routine list displayed in one of a first and a second window region; and

displaying one of a first routine called by said routine and a second routine calling said routine in response to said selection.

2. The method of claim 1 wherein said first window region comprises a calls window region and said second window region comprises a called-by window region.

3. The method of claim 1 wherein said routine list is contained in a plurality of data structures stored in a database.

4. The method of claim 1 wherein said step of displaying one of said first routine and said second routine further comprises the step of displaying said one of said first and second routines in a tree hierarchy.

5. The method of claim 1 wherein said step of selecting said routine from a routine list comprises the step of selecting an icon associated with said routine, wherein said icon flags said routine as having an undisplayed routine dependency.

6. The method of claim 1 further comprising the step of accessing a data structure stored in a database, said data structure having an entry corresponding to said routine, and wherein said step of displaying said one of said first and second routines comprises the step of displaying said one of said first and second routines in response to a routine identifier,

corresponding to said one of said first and second routines, contained in a portion of said entry.

7. The method of claim 6 wherein said step of displaying said one of said first and second routines further comprises the step of displaying said first routine in response to said routine identifier in a routine field of said entry.

8. The method of claim 6 wherein said step of displaying said one of said first and second routines further comprises the step of displaying said second routine in response to said routine identifier in a routine called field of said entry.

9. The method of claim 1 further comprising the step of specifying a routine type, and wherein said step of displaying said one of said first and second routines comprises the step of displaying said one of said first and second routines in response to said routine type.

10. The method of claim 1 further comprising the step of displaying said routine list in said first and second window regions.

11. A data processing system comprising:

circuitry operable for selecting a routine from a routine list displayed in one of said first and second window regions; and

circuitry operable for displaying one of a first routine called by said routine and a second routine calling said routine in response to said selection.

12. The data processing system of claim 11 wherein said first window region comprises a calls window region and said second window region comprises a called-by window region.

13. The data processing system of claim 11 wherein said routine list is contained in a plurality of data structures stored in a database.

14. The data processing system of claim 11 wherein said circuitry operable for displaying one of said first routine and said second routine further comprises circuitry operable for displaying said one of said first and second routines in a tree hierarchy.

15. The data processing system of claim 11 wherein said circuitry operable for selecting said routine from a routine list comprises circuitry operable for selecting an icon associated with said routine, wherein said icon flags said routine as having an undisplayed routine dependency.

16. The data processing system of claim 11 further comprising circuitry operable for accessing a data structure stored in a database, said data structure having an entry corresponding to said routine, and wherein said circuitry operable for displaying said one of said first and second routines comprises circuitry operable for displaying said one of said first and second routines in response to a routine identifier, corresponding to said one of said first and second routines, contained in a portion of said entry.

17. The data processing system of claim 16 wherein said circuitry operable for displaying said one of said first and second routines further comprises circuitry operable for displaying said first routine in response to said routine identifier in a routine field of said entry.

18. The data processing system of claim 16 wherein said circuitry operable for displaying said one of said first and second routines further comprises circuitry operable for displaying said second routine in response to said routine identifier in a routine called field of said entry.

19. The data processing system of claim 11 further comprising circuitry operable for specifying a routine type, and wherein said step of displaying said one of said first and second routines comprises circuitry operable for displaying said one of said first and second routines in response to said routine type.

20. The data processing system of claim 11 further comprising circuitry operable for displaying said routine list in said first and second window regions.

21. A computer program product operable for storage on program storage media, the program product operable for displaying hierarchical call dependencies, comprising:

programming for selecting a routine from a routine list displayed in one of said first and second window regions; and

programming for displaying one of a first routine called by said routine and a second routine calling said routine in response to said selection.

22. The program product of claim 21 wherein said first window region comprises a calls window region and said second window region comprises a called-by window region.

23. The program product of claim 21 wherein said routine list is contained in a plurality of data structures stored in a database.

24. The program product of claim 21 wherein said programming for displaying one of said first routine and said second routine further comprises programming for displaying said one of said first and second routines in a tree hierarchy.

25. The program product of claim 21 wherein said programming for selecting said routine from a routine list comprises programming for selecting an icon associated with said routine, wherein said icon flags said routine as having an undisplayed routine dependency.

26. The program product of claim 21 further comprising programming for accessing a data structure stored in a database, said data structure having an entry corresponding to said routine, and wherein said programming for displaying said one of said first and second routines comprises programming for displaying said one of said first and second routines in response to a routine identifier, corresponding to said one of said first and second routines, contained in a portion of said entry.

27. The program product of claim 26 wherein said programming for displaying said one of said first and second routines further comprises programming for displaying said first routine in response to said routine identifier in a routine field of said entry.

28. The program product of claim 26 wherein said programming for displaying said one of said first and second routines further comprises programming for displaying said second routine in response to said routine identifier in a routine called field of said entry.

29. The program product of claim 21 further comprising programming for specifying a routine type, and wherein said step of displaying said one of said first and second routines comprises programming for displaying said one of said first and second routines in response to said routine type.

30. The program product of claim 21 further comprising programming for displaying said routine list in said first and second window regions.